



14 APRIL 2020

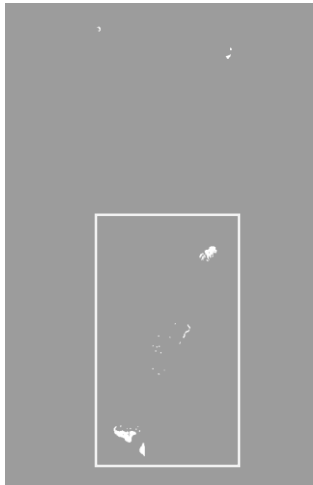
PRELIMINARY SATELLITE-DERIVED DAMAGE ASSESSMENT IN TONGA

STATUS: EVIDENCES OF DAMAGED BUILDING DETECTED

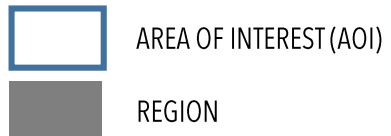
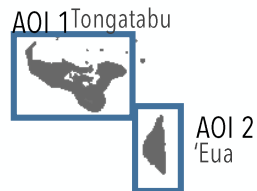
FURTHER ACTION(S): CONTINUE MONITORING



OVERVIEW / BASED ON AOIs ASSESSED



TONGA



Date of assessment validity:

Impact and severity*:

- undetected
- limited impact potentially detected
- significant impact potentially detected

Data sources:

- (1) pre-event (reference) image:
 - ESRI base map
 - Google Earth
- (2) post-event images:
 - Pleiades, 10 and 12 April 2020, CNES (2020), distribution Airbus DS
- (3) baseline data
 - Administrative boundaries: OCHA ROP

Potentially affected elements at risk (indicate all that are applicable):

- buildings - residential
- buildings - commercial/ industry
- vulnerable structures (e.g. schools, hospitals, water, sanitation, power stations,
- internally displaced persons (IDP) camps
- transportation network
- agriculture
- other:

* disclaimer (i.e. assessment has yet to be validated with field-based information)

AOI 1 KOLOVAI DISTRICT, TONGATABU DIVISION, TONGA : POTENTIALLY DAMAGED BUILDING

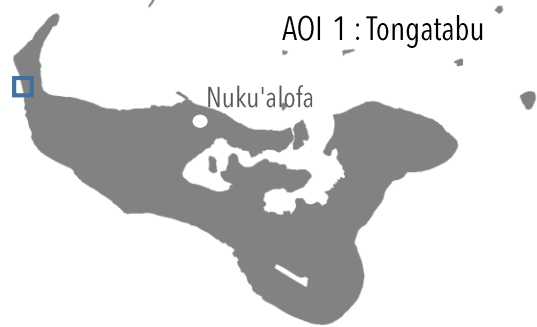
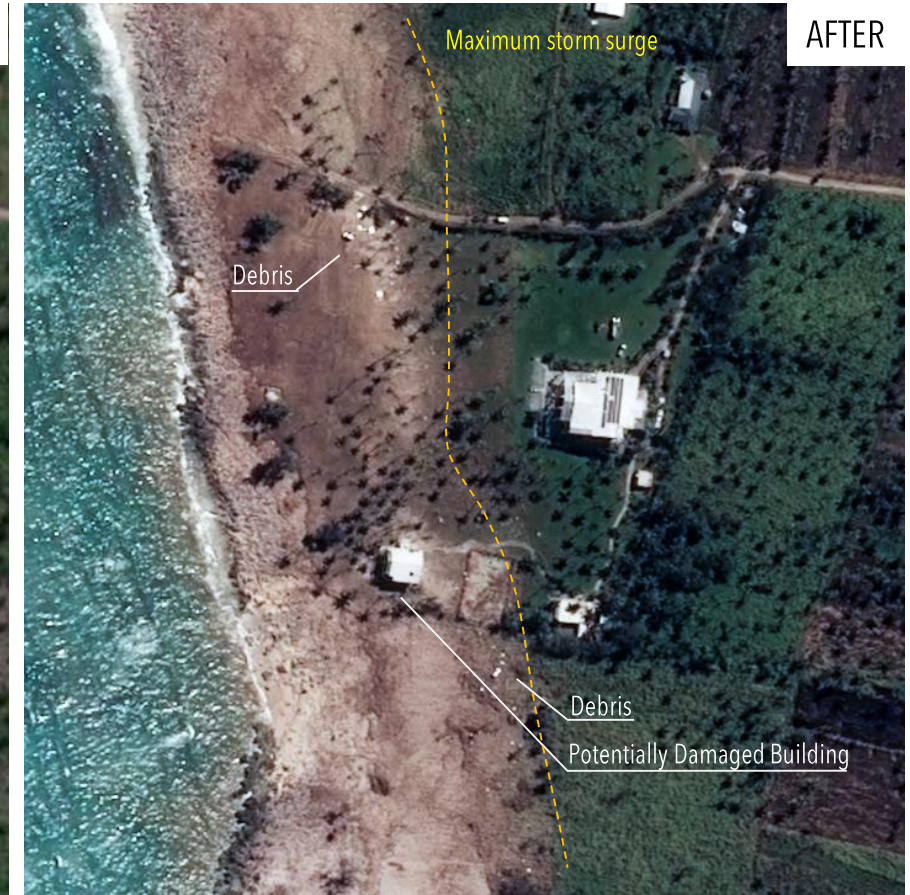


Image Center :
175°20'50.95"W
21°7'4.319"S



ESRI Base map



Pleiades / 10 APRIL 2020

AOI 1 KOLOVAI DISTRICT, TONGATABU DIVISION, TONGA : POTENTIALLY DAMAGED BUILDING

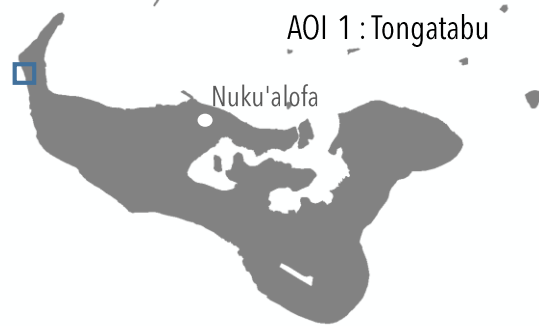


Image Center :
175°21'7.203"W
21°6'10.599"S



AOI 1 KOLOVAI DISTRICT, TONGATABU DIVISION, TONGA : DAMAGED BUILDING

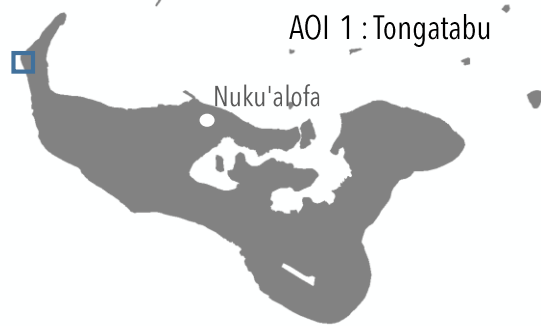
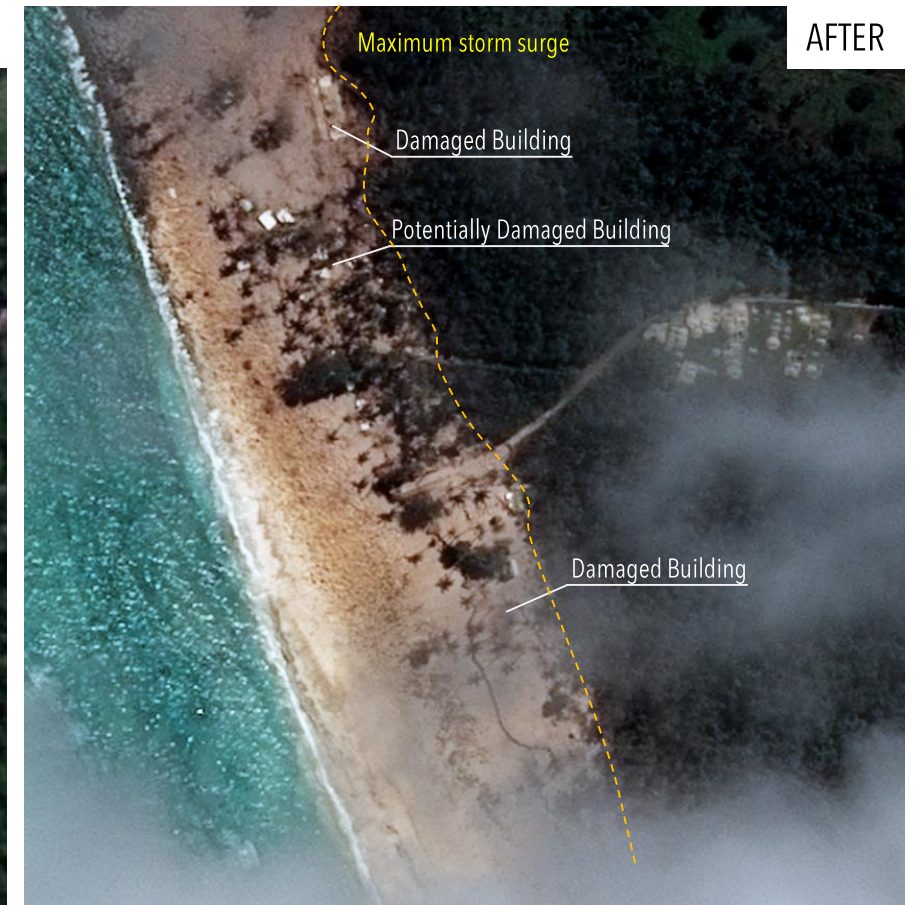


Image Center :
175°21'18.076"W
21°5'46.431"S



AOI 1 KOLOVAI DISTRICT, TONGATABU DIVISION, TONGA : DAMAGED BUILDING

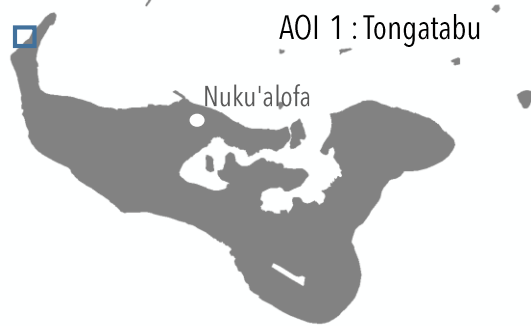


Image Center :
175°20'40.741"W
21°4'55.19"S

AOI 1 KOLOVAI DISTRICT, TONGATABU DIVISION, TONGA : DAMAGED BUILDING

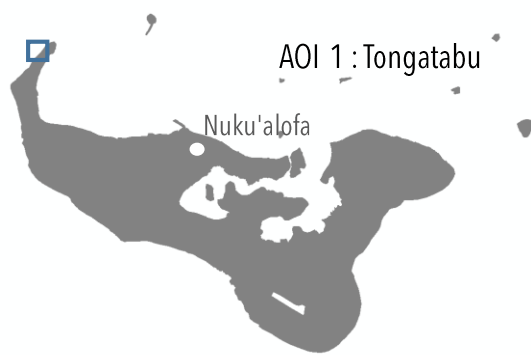
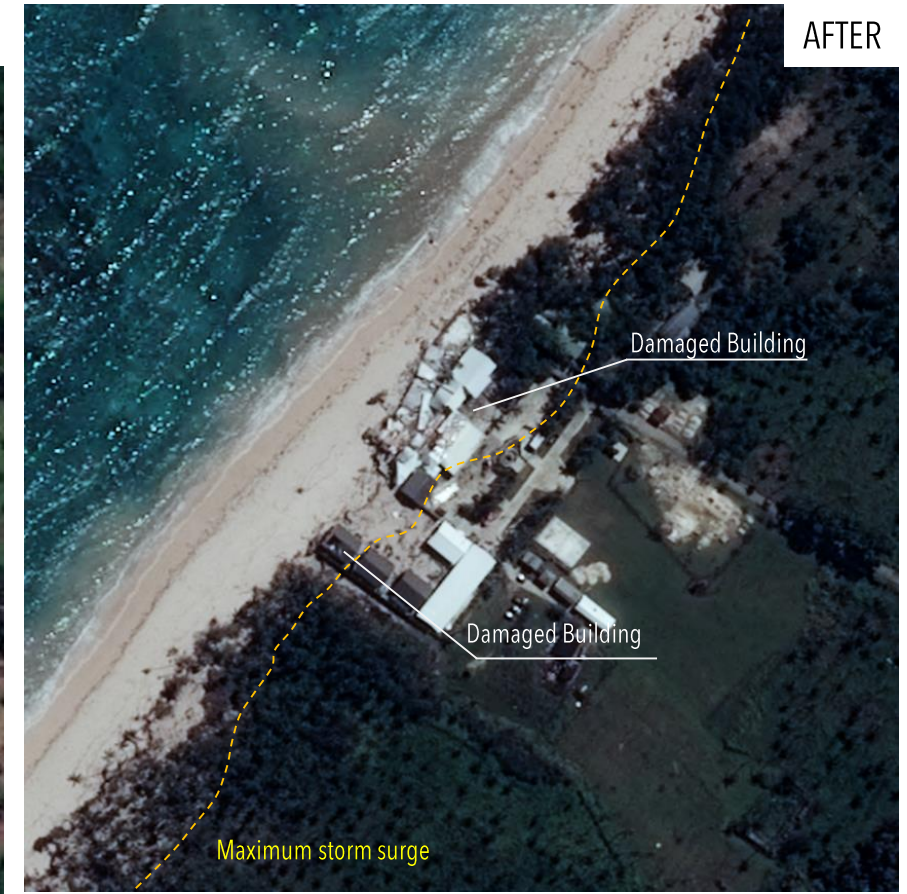


Image Center :
175°20'17.635"W
21°4'26.901"S



AOI 2 'EUA PROPE DISTRICT, 'EUA DIVISION, TONGA : DAMAGED BUILDING



Image Center :
174°54'44.984"W
21°26'36.491"S



Google Earth / 1 JUNE 2016



Pleiades / 12 APRIL 2020

AOI 2 'EUA PROPE DISTRICT, 'EUA DIVISION, TONGA : POTENTIALLY DAMAGED BUILDING



Image Center :
174°57'21.731"W
21°20'31.286"S



AOI 3 'UIHA DISTRICT, HA'APAI DIVISION, TONGA : DAMAGED ROOF

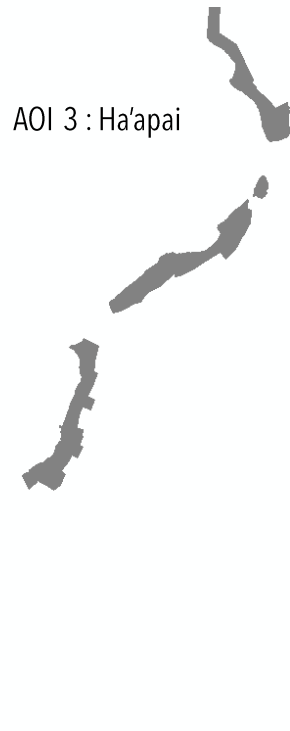


Image Center :
174°24'33.149"W
19°53'16.205"S



Google Earth / 31 MAY 2016

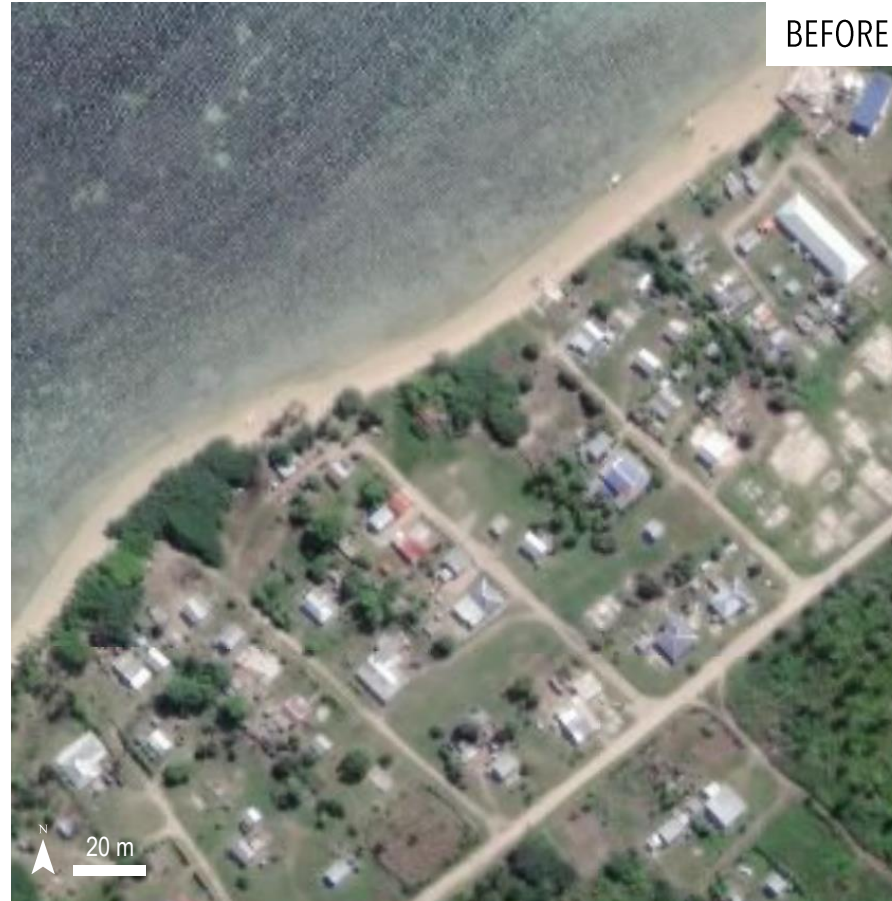


Pleiades / 12 APRIL 2020

AOI 3 PANGAI DISTRICT, HA'APAI DIVISION, TONGA : DAMAGED ROOF



Image Center :
174°21'41.937"W
19°49'4.203"S



AOI 4 NEIAFU DISTRICT, VAVA'U DIVISION, TONGA : NO VISIBLE DAMAGE



Image Center :
173°58'56.955"W
18°39'1.699"S



SUMMARY OF PRELIMINARY OBSERVATIONS AND FURTHER ACTIONS

Date of assessment validity: 14 APRIL 2020

Preliminary observations, impact and severity *:

- Evidence of severe damaged structures detected along northwestern coast of Kolovai district, Tongatabu division (AOI1);
- Evidences of storm surge could be observed in 'Eua division (AOI 2) and Ha'apai division (AOI 3) causing damage to houses;
- No visible structural damage could be identified in Vava'u division (AOI 4) as of 12 April 2020.

Further/ anticipated actions from UNOSAT:

- no impact detected/ discontinue monitoring over specific AOI
- potential impact detected continue monitoring over specific AOIs
 full assessment to be conducted
- more data and/ or information needed to confirm impact

* disclaimer (i.e. assessment has yet to be validated with field-based information)